# Introduction to Metals Futures

Presented by Pete Mulmat and Dan Gramza September 25th, 2014



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Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade. All references to options refer to options on futures.

Swaps trading is not suitable for all investors, involves the risk of loss and should only be undertaken by investors who are ECPs within the meaning of section 1(a)12 of the Commodity Exchange Act. Swaps are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade.

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All matters pertaining to rules and specifications herein are made subject to and are superseded by official Exchange rules. Current rules should be consulted in all cases concerning contract specifications.

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## **Agenda**

- Precious Metals
  - Gold
  - Silver
  - Platinum
  - Palladium
- Industrial Metals
  - Copper
- Spreads
  - -Gold/Silver ratio
- Options on Futures in the Metals Markets
- CME Group Resources



# **Hedging and Speculating**





## Why Trade?

- To make money from the various commodity & financial markets
- As part of a diversification of ones portfolio
- To generate a return greater than the risk free rate of return
- As a profession/business





## Why Has the Speculative Community Focused on the Metals?

Wide Trading Ranges



Charts provided by Interactive Brokers

Charts provided by Interactive Brokers



## **Important Terminology**

- Trading Venues for Futures and Options on Futures
  - Open outcry
  - Electronic Trading
    - Globex
- Regulated Exchanges
- Category of Trades
  - Outright
    - Long or Short
  - Spreads
    - InterMonth (calendar spreads)
    - InterMarket (within an exchange)
    - IntraMarket (geography)





## **Key Definitions**

Futures Contract	a standardized agreement between to parties to buy or sell a product at an agreed price on a future date.
"standardized agreement"	means futures contracts are fungible
"buy"	trade may be, but not always, offset with a sell trade before contract expiration
"sell"	trade may be, but not always, offset with a buy trade before contract expiration
"futures expiration date"	is the standardized expiration date for that futures contract



#### A Closer Look At A Futures Contract

- Agreement to buy or sell a commodity at a date in the future
- Everything is standardized except the price
- Price of the commodity is determined in the trading pit or on the electronic trading system of a futures exchange

#### What is standardized?

- Commodity
- Quantity
- Quality
- Delivery Date
- Delivery Point or Cash Settlement





## **Trader Dashboard**

METALS								
× METALS F/X FUTURES	+							
Contract	Last	Change	Change %	Bid Size	Bid	Ask	Ask Size	Volume
Contract	Action	Quantity	Time in Force	Type	Lmt Price	Destination	Transmit	Status
Precious Metals								
GC Dec29'14 @NYMEX	• 1267.80	+1.30	0.10%	9	• 1267.70	1267.80 •	9	81.3K
SI Dec29'14 @NYMEX	• 19.125	-0.015	-0.08%	5	• 19.120	19.125 •	13	19.4K
PL Jan28'15 @NYMEX	• 1412.00	+1.90	0.13%	1	• 1411.40	1412.10 •	4	766
PA Dec29'14 @NYMEX	• 890.80	-0.20	-0.02%	1	<ul><li>890.20</li></ul>	890.85	7	2.36K
Industrial Metals								
HG Dec29'14 @NYMEX	• 3.1520	+0.0010	0.03%	24	• 3.1520	3.1525 •	5	16.9K



#### **Mechanics of Gold Futures**

- The dollar value of 1 contract is the contact's Notional Value (NV)
  - NV changes with index price moves
- Futures Contract Value =
   Contract size X Quoted Value
  - Gold= 100 oz. X \$1,280/ oz.
  - Gold Contract Value = \$128,000.00

40 807-5 540 0.607 5-50 540.5

As of 8/1/2014

## **Metals Futures**

#### **Gold Silver Copper**

Product	Gold	Silver	Copper	
Trading Venue	CME Globex	CME Globex	CME Globex	
Ticker Symbol	GC	SI	HG	
Underlying Instrument	100 troy ounces	5,000 troy ounces	25,000 lbs.	
Approx. Dollar Value	Approx. Dollar Value \$128,000 per contract		\$78,712.00	
Minimum Tick	\$0.10 per troy ounce	\$0.005 per troy ounce	\$0.0005 per pound	
Dollar Value of One Tick	\$10.00	\$25.00	\$12.50	
Options	Yes	Yes	Yes	

As of 9/4/2014



## **Precious Metals**

#### Platinum | Palladium

Product	Platinum	Palladium	
Trading Venue	CME Globex	CME Globex	
Ticker Symbol	PL	PA	
Underlying Instrument	50 troy ounces	100 troy ounces	
Approx. Dollar Value	\$70,600	\$89,090 per contract	
Minimum Tick	\$0.10 per troy ounce	\$0.05 per troy ounce	
Dollar Value of One Tick	\$5.00	\$5.00	
Options	Yes	Yes	

As of 9/5/2014



## **Trade Scenario: Gold Futures**

Strategy: Buy Gold • Specs: 100 troy ounces

#### September 1st

Buy 1 Dec. 2014 Gold @ 1288.50

Contract Value (\$1280.50 X 100 ounces)	\$128,850
Initial Margin	\$5,060.00

#### September 5th

Sell1 Dec. 2014 Gold @ 1280.50

Contract Value (\$1.3450 X 125,000 Euros) \$128,050

1,288.50	Buy Price
1,280.50	Sell price
-8.50	Difference

85 ticks	Difference
x 10.00	
\$850	Loss

Trade	Margin	Percentage
Loss	Requirement	Loss
\$850	÷ \$5,060 =	16%



## **Metals Futures Comparison**

Futures Contract	Contract Multiplier	Price-Rate	Contract Value
Gold	100 troy ounces	\$ 1280.00	\$128,000
Silver	5,000 ounces	\$ 19.265	\$96,325
Copper	25,000 pounds	\$ 3.15	\$78,750

As of 9/4/2014



## What is a Spread Ratio

- In order to place an inter-market spread, it is necessary to derive the so-called "spread ratio." The spread ratio is an indication of the ratio or number of futures that must be held in the two markets to equalize the monetary value of the positions held on both legs of the spread
- The following formula may be used for this purpose where Value1 and Value2 represent the monetary value (in a common currency as necessary) of the futures contracts that are the subject of the spread.

**Equation:** Spread Ratio = Value 1 ÷ Value 2

## Spread Ratio Calculation- Example

**Equation:** Spread Ratio = Value 1 ÷ Value 2

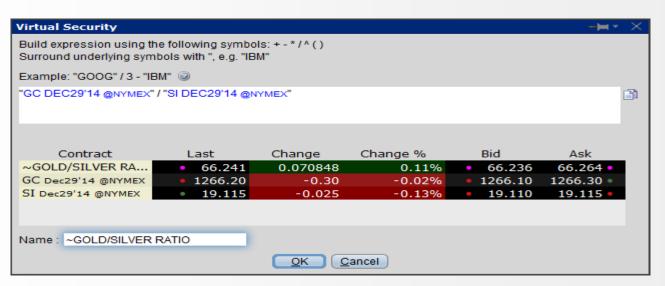
Gold futures were nominally valued at \$128,000 = (\$100 ounces X \$1,280 )
Silver futures were valued at \$96,325 = (5,000 ounces X 19.265) on September 4, 2014.

Spread Ratio = Value 1 (Gold)  $\div$  Value 2 (Silver)  $\rightarrow$  \$128,000  $\div$  \$96,325 = 1.328 or Ratio of roughly 5 Silver to 4 Gold

As of 9/4//2014



#### **Trader Dashboard**



METALS								
× METALS F/X FUTURES	+							
Contract	Last	Change	Change %	Bid Size	Bid	Ask	Ask Size	Volume
Contract	Action	Quantity	Time in Force	Туре	Lmt Price	Destination	Transmit	Status
Precious Metals								
GC Dec29'14 @NYMEX	• 1266.20	-0.30	-0.02%	15	• 1266.10	1266.20 •	16	88.5K
SI Dec29'14 @NYMEX	• 19.115	-0.025	-0.13%	17	• 19.110	19.115 •	14	21.4K
PL Jan28'15 @NYMEX	1413.20	+3.10	0.22%	3	• 1412.30	1412.90 •	3	1.02K
PA Dec29'14 @NYMEX	• 889.80	-1.20	-0.13%	2	<ul><li>889.65</li></ul>	889.95 •	6	2.74K
Industrial Metals								
HG Dec29'14 @NYMEX	• 3.1645	+0.0135	0.43%	5	• 3.1640	3.1645 •	10	20.9K
~GOLD/SILVER RATI	• 66.241	0.070848	0.11%		• 66.236	66.259 •		

Provided by Interactive Brokers



#### **Trader Dashboard**

Gold/Silver Cross Rate: 1266.20 / 19.115 = 66.241

METALS								
× METALS F/X FUTURES	+							
Contract	Last	Change	Change %	Bid Size	Bid	Ask	Ask Size	Volume
Contract	Action	Quantity	ime in Force	Туре	Lmt Price	Destination	Transmit	Status
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PA Dec29'14 @NYMEX	• 889.80	-1.20	-0.13%	2	<ul><li>889.65</li></ul>	889.95 •	6	2.74K
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~GOLD/SILVER RATI	• 66.241	0.070848	0.11%		• 66.236	66.259 •		

Provided by Interactive Brokers



#### **Gold/Silver Ratio Cross**

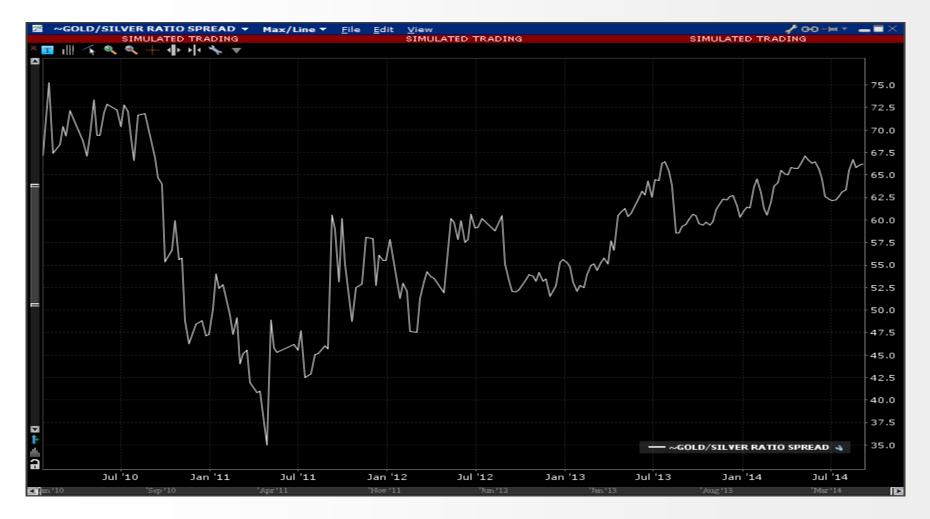


Chart provided by Interactive Brokers



# **Metals: Mini and Micro Contracts**



## **Micro and Mini Metals Futures**

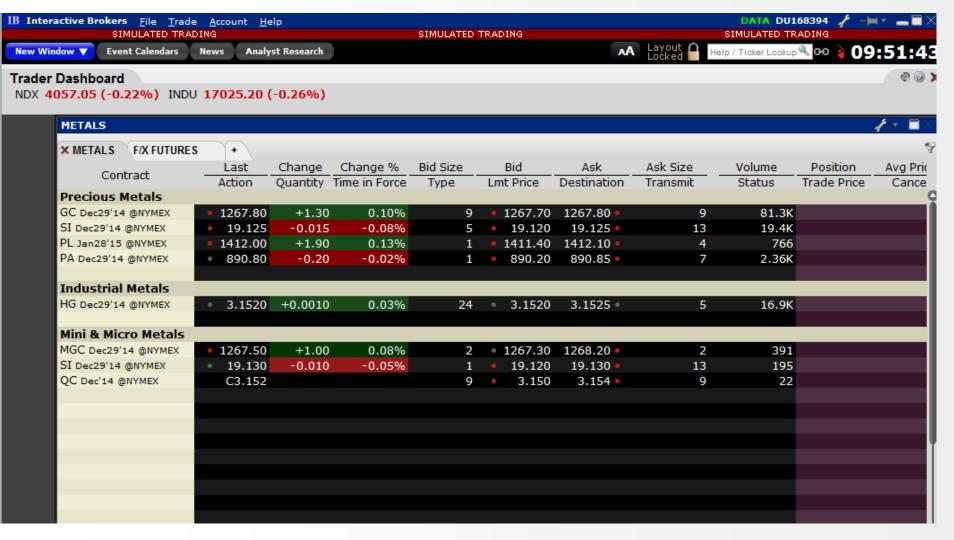
#### Gold | Silver | Copper

Product	Gold	Silver	Copper	
Trading Venue	CME Globex	CME Globex	CME Globex	
Ticker Symbol	MGC	SIL	QC	
Underlying Instrument	10 troy ounces	1,000 troy ounces	12,500 lbs.	
Approx. Dollar Value	\$12,800 per contract	\$19,625 per contract	\$39,356 per contract	
Minimum Tick	\$0.10 per troy ounce	\$0.01 per troy ounce	\$0.002 per pound	
Dollar Value of One Tick	\$1.00	\$5.00	\$12.50	
Options	No	No	No	

As of 9/4/2014



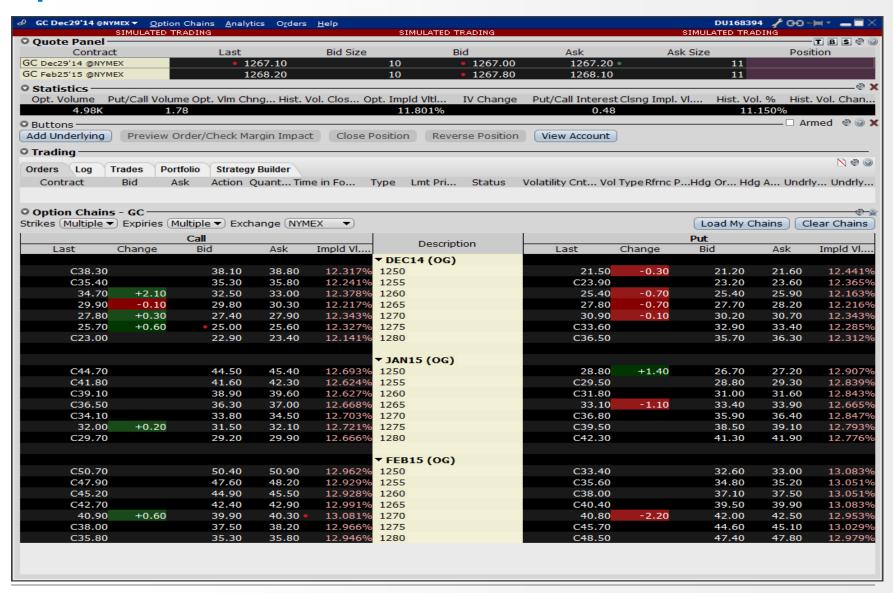
#### Mini and E-micro Metals Futures



Provided by Interactive Brokers



## **Options on Futures**





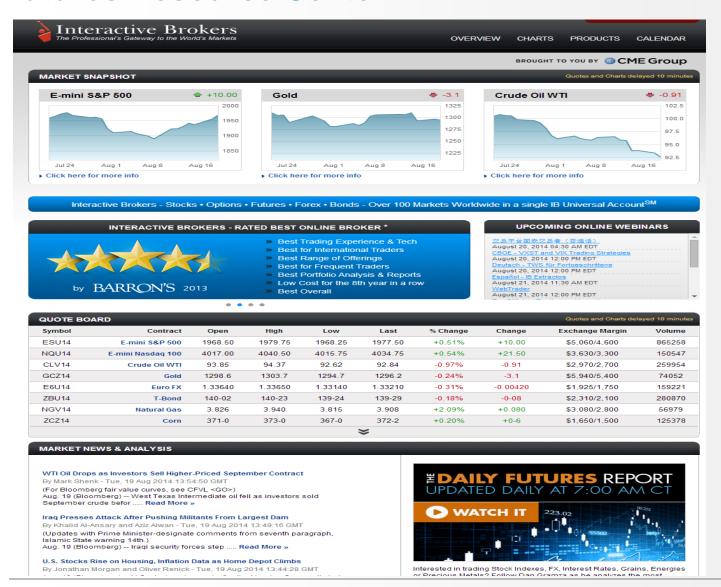
#### **Options Contract Specifications**

	GOLD OPTIONS	SILVER OPTIONS	COPPER OPTIONS
Contract Unit	One COMEX Gold futures contract	One COMEX Silver futures contract	One COMEX Copper futures contract
Product Symbol	OG	so	нх
Venue	CME Globex, CME ClearPort, Open Outcry (New York)	CME Globex, CME ClearPort, Open Outcry (New York)	CME Globex, CME ClearPort, Open Outcry (New York)
Hours (All Times are New York Time/ ET)	CME Globex: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) CME ClearPort: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) Open Outcry: Monday – Friday 8:20 a.m. – 1:30 p.m. (7:20 a.m. – 12:30 p.m. CT)	CME Globex: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) CME ClearPort: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) Open Outcry: Monday – Friday 8:25 a.m. – 1:25 p.m. (7:25 a.m. – 12:25 p.m. CT)	CME Globex: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) CME ClearPort: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time/CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT) Open Outcry: Monday – Friday 8:10 a.m. – 1:00 p.m. (7:10 a.m. – 12:00 p.m. CT)
Price Quotation	U.S. dollars and cents per troy ounce	U.S. cents per troy ounce	U.S. cents per pound
Option Style	American	American	American
Minimum Fluctuation	\$0.10 per troy ounce	Outright transactions including EFP: \$0.005 per troy ounce; Straddle or spread transactions and settlement prices: \$0.001 per troy ounce	\$0.0005 per pound
Expiration of Trading	Trading terminates on the fourth business day prior to the underlying futures delivery month. If the expiration day falls on a Friday or immediately prior to an Exchange holiday, expiration will occur on the previous business day.	Trading terminates on the fourth business day prior to the underlying futures delivery month. If the expiration day falls on a Friday or immediately prior to an Exchange holiday, expiration will occur on the previous business day.	Trading terminates on the fourth business day prior to the underlying futures delivery month. If the expiration day falls on a Friday or immediately prior to an Exchange holiday, expiration will occur on the previous business day
Listed Contracts	Trading is conducted in the nearest six of the following contract months: February, April, June, August, October and December. Additional contract months – January, March, May, July, September and November – will be listed for trading for a period of two months. A 60-month options contract is added from the current calendar month on a June–December cycle.	Trading is conducted in the nearest five of the following contract months: March, May, July, September and December. Additional contract months – January, February, April, June, August, October and November – will be listed for trading for a period of two months. A 60-month options contract is added from the current calendar month on a July–December cycle.	Trading is conducted in each of the nearest 22 futures contract months.
Strike Prices	Ten strikes at \$10.00 increments above the twentieth \$5.00 increment above the at-the-money strike price and ten below the twentieth \$5.00 increment below the at-the-money; and an additional eight \$25.00 strike price increments above the tenth \$10 increment above the at-the-money strike price and eight \$25.00 strike price increments below the at-the-money strike price.	Strike prices for silver option contracts for all contract months are at an interval of five cents (\$.05).	Strike prices for all copper option contracts for all contract months are at an interval of one cent (\$.01).
Settlement Type	Physical	Physical	Physical
Rulebook Chapter	115	116	117

For more information on our Metals markets, visit www.cmegroup.com/metals



#### **Futures Resource Center**





# Thank you

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